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Remarks/Arguments

This is a complete response to the Office Action mailed on February 27th, 2006 (Office Action) in which claims 1, 3, 4, 10, and 11 were rejected and claims 2, 5-9 and 12 were found to be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Reconsideration of the subject application is respectfully requested.

35 USC § 103 Rejection

Claims 1, 3, 4, 10, and 11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6690850 (Greywall) in view of published U.S. patent application 2004/0080938 (Holman). Applicants respectfully traverse the rejection on the basis that it does not establish a *prima facie* case of obviousness because: (A) no valid suggestion or motivation to combine the references has been provided; and (B) the combination of the references does not teach or suggest all the claimed limitations.

A. No Suggestion to combine or modify Greywall and Holman.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. MPEP 2143.01(I)

The proposed modification cannot render the prior art unsatisfactory for its intended purpose. MPEP 2143.01(V)

The proposed modification cannot change the principle of operation of a reference. MPEP 2143.01(VI)

The Examiner maintains that, "it would have been obvious to one having ordinary skill in the art at the time the invention was made to arrange the reflectors [of Holman]

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orthogonal to each other for the purpose of the electromagnetic energy being on the same orthogonal plane of the substrate.” (Office Action pg. 3)

The suggestion of modifying the three-sided reflector system of Holman into a corner cube configuration (i.e. reflective surfaces mutually orthogonal to each other) for the purpose of the electromagnetic energy being on the same orthogonal plane of the substrate can be found neither explicitly in the cited references, nor implicitly in the combined teachings. The Examiner’s justification for modifying Holman appears to be based solely on impermissible hindsight reconstruction.

Furthermore, rearranging Holman’s reflectors orthogonal to each other fundamentally changes the functionality of Holman’s three-sided reflector system. Holman’s three-sided reflector system channels light emission from three faces of an illumination element through one designated lightpipe output face. (Holman ¶ 0356) A corner cube reflector directs incident light back in the direction of the light source. (page 1, lines 10-12) If Holman’s three-sided reflector system were replaced by a corner cube reflector, as suggested by the Examiner, light from Holman’s illumination element would simply be reflected back towards the illumination element and not the designated lightpipe output face. Thus, rearranging Holman’s reflectors orthogonal to each other changes the principle of operation of Holman and renders Holman useless for its intended purpose.

The Examiner also asserts that, “it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the device of Greywall with the reflector of Holman et al. for the purpose of providing wide-angle output light.” (Office Action page 3) To begin with, rearranging Holman’s three-sided reflector system into a corner cube configuration no longer facilitates Holman’s intention of providing wide-angle output light, as the reflected light will no longer be directed through one designated lightpipe output face (as explained above). Therefore, combining Holman’s rearranged reflectors with the movable reflective element of Greywall **will not** provide wide-angle output light, contrary to Examiner’s assertion.

Furthermore, Rearranging the three reflectors from Holman’s lightpipe illuminator into a corner cube reflector configuration and then combining it with the movable reflective element of Greywall renders Greywall’s spectral equalizer

inoperative. Greywall teaches a movable reflective element that may be rotated about an axis of rotation such that the direction of a reflected outgoing optical signal is ***nonparallel*** to the direction of the incoming signal. (Greywall col 5, lines 12-20) Greywall utilizes this principle to attenuate the strength of a spectral component of a multiplexed signal. (Greywall col 5, lines 34-38) Corner cube reflectors reflect incident light back in the direction of the source (i.e. incoming and outgoing signals are parallel). (page 1, lines 10-12) Thus, combining a corner cube reflector with the movable reflective element of Greywall changes the principle of operation of Greywall and renders Greywall useless for its intended purpose. The combination of Holman and Greywall also appears to be based solely on impermissible hindsight reconstruction.

The purposes provided by the Examiner for modifying Holman and then combining it with Greywall render both prior art references ineffective for their intended purposes while as well as alter the principle of their operation. Therefore, Applicant asserts that the Examiner has not provided valid motivation to modify or combine the cited references.

B. The combination of Greywall and Holman fails to teach or suggest all the limitations as claimed in the current application.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. MPEP 2143.03

Many claim limitations of the current application are not taught or suggested by the prior art. For example, claim 1 discloses three substantially planar reflectors arranged substantially mutually orthogonal to each other. The Examiner maintains that it would have been obvious to arrange the reflectors from Holman's three-sided reflector system orthogonal to each other. In support of this assertion, Examiner interprets *In re Japinske* as holding that "rearranging parts of an invention involves only routine skill in the art." Such an interpretation is incorrect. In *In re Japinske* the court simply affirmed a decision of the Board of Patent Appeals and Interferences wherein it was determined that the shifting of the position of a starting switch on a hydraulic press that did not modify the

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operation of the press was not a patentable distinction over the prior art. *In re Japinkse*, 181 F.2d 1019, 37 C.C.P.A. 1026, 1031 (C.C.P.A. 1950). Here, fundamental differences in operation are involved, not merely the relocation of a start switch. Furthermore, holding that any rearrangement of parts of an invention involves only routine skill in the art destroys the very concept of invention as explained by the Court of Appeals for the Federal Circuit:

As this court has stated, "virtually all [inventions] are combinations of old elements." [citation omitted] Therefore an examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be "an illogical and inappropriate process by which to determine patentability." [citation omitted] In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998)

It is improper for the Examiner to reject claims as obvious merely because the claimed invention is a rearrangement of known elements. It would not have been obvious or common knowledge to one skilled in the art to arrange the reflectors from Holman's three-sided reflector system to make them orthogonal to each other because such an arrangement no longer provides Holman's objective of wide-angle output light. If the Examiner maintains that rearranging the three reflectors of Holman mutually orthogonal to each other involves only routine skill in the art (i.e. is common knowledge), the Examiner is respectfully requested to support such a finding with an affidavit or other adequate evidence according to MPEP 2144.03C.

Regarding claim 1, the Office Action cites Greywall's elements 532A and 532B as being a biasing source. However, elements 532A and 532B are described in Greywall as mere electrodes—not as a biasing source. (Greywall col. 8, line 15; see also Fig. 13) Further evidence that elements 532A and 532B are not a biasing source is found in Greywall's Fig. 13 and Greywall's specification. Apparently, elements 532A and 532B

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are merely a combination of Greywall's contact pads 1382 and electrically conductive traces 1384. (See Greywall col. 11, lines 14-17)

Regarding claim 3, the Office Action cites paragraph 0358 of Holman as disclosing reflector 1010 comprising at least one layer by which the reflection properties of that reflector may be altered with an applied voltage. Applicant has been unable to find any reference in Holman, paragraph 0358, or otherwise to indicate that reflector 1010 comprises at least one layer by which the reflection properties of reflector 1010 may be altered with an applied voltage.

Regarding claim 4, the Office Action cites paragraphs 0356-0358 of Holman as disclosing a base reflector comprising an electrochromic stack. Applicant has been unable to find any reference in Holman to support such an assertion.

Regarding claim 10, the Office Action cites paragraph 0358 of Holman as disclosing a base reflector 1010 that comprises a plurality of layers, which form a capacitive structure. No mention of base reflector 1010 comprising such a plurality of layers can be found in the cited reference.

Regarding claim 11, the Rejection cites paragraphs 0356-0358 of Holman as disclosing a base reflector 1010 comprising an electro-optic material. Nowhere in Holman could Applicant find a reference or suggestion that base reflector 1010 may be comprised of electro-optic material.

The elements discussed above are specific limitations of Applicant's claims. The passages cited by the Examiner fail to teach or suggest those limitations. Accordingly, the Examiner is respectfully asked to "produce" these elements in the cited references or otherwise withdraw the rejection based upon Greywall/Holman.

Claim Objection

Claims 2, 5-9, and 12 were objected to as being dependent upon a rejected base claim. Applicants respectfully submit that the rejection of claim 1 has been traversed, and that independent claim 1 and dependent claims 2, 5-9, and 12 should now be allowed.

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Conclusion

The Examiner has failed to present a prima facie case of obviousness in the rejection of claims 1, 3, 4, 10, and 11, as no valid suggestion or motivation to combine the references has been provided; and the combination of the references does not teach or suggest all the claimed limitations. Applicants respectfully request withdrawal of the rejection of claims 1, 3, 4, 10, and 11 and the objection to claims 2, 5-9, and 12. Applicants respectfully submit that claims 1-12 of the present application are in condition for allowance.

Respectfully Submitted,

A handwritten signature in cursive script, reading "Peter A. Lipovsky".

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